

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1. (Currently Amended) A tuner apparatus comprising:
a mixer circuit for frequency-converting terrestrial TV broadcast signals or CATV broadcast wave signals supplied from a terrestrial TV broadcasting receiver or a CATV broadcasting receiver into using first oscillation signals that fall within a an occupied bandwidth of intermediate-frequency signals of satellite TV broadcasting signals supplied from a satellite TV broadcasting receiver and, said mixer circuit outputting first intermediate-frequency signals;

a quadrature detector circuit to which said intermediate-frequency signals of said satellite TV broadcasting intermediate-frequency signals and said first intermediate-frequency signals from said mixer circuit are inputted; and

an oscillator circuit for supplying second oscillation signals of the occupied bandwidth of said intermediate-frequency signals of said satellite TV broadcasting signals to said quadrature detector circuit,

wherein when said tuner apparatus receives said satellite TV broadcasting signals, said oscillator circuit supplies said second oscillation signals in a predetermined frequency band and of a predetermined frequency band of the occupied bandwidth and of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency

signals supplied thereto are demodulated into baseband signals by using said second oscillation signals, and

wherein when said tuner apparatus receives said terrestrial TV broadcasting broadcast signals or said CATV broadcasting broadcast signals, said oscillator circuit supplies said second oscillation signals ~~in a predetermined frequency band~~ to said quadrature detector circuit where after said first intermediate-frequency signals supplied thereto are have been frequency-converted into second intermediate-frequency signals by using said first oscillation signals.

Claim 2. (Currently Amended) The tuner apparatus according to claim 1, further comprising ~~a~~ first an intermediate-frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit.

Claim 3. (Currently Amended) The tuner apparatus according to claim 1 2, wherein when said tuner apparatus receives said satellite TV broadcasting signals, said intermediate-frequency signals obtained by receiving the satellite TV broadcasting signals are supplied through said mixer circuit to said quadrature detector circuit and said mixer circuit operates as said first intermediate-frequency amplifier.

Claim 4. (Currently Amended) A tuner apparatus comprising: a satellite TV broadcasting receiver for receiving satellite TV broadcasting wave broadcast signals and outputting satellite

TV broadcasting intermediate-frequency signals;

a terrestrial TV broadcasting receiver or CATV broadcasting receiver for receiving terrestrial TV broadcast or CATV broadcast wave signals;

a mixer circuit for frequency-converting said terrestrial TV broadcast signals or said CATV broadcast wave signals into using first oscillation signals within the bandwidth of said satellite TV broadcasting intermediate-frequency signals by using first oscillation signals in a predetermined frequency band and, said mixer outputting first intermediate-frequency signals;

a quadrature detector circuit to which said intermediate- frequency signals of said satellite TV broadcasting intermediate-frequency signals and said first intermediate-frequency signals from said mixer circuit are inputted;

a first oscillator circuit for supplying said first oscillation signals to said mixer circuit; and

a second oscillator circuit for supplying second oscillation signals of the occupied bandwidth of said intermediate-frequency signals of said satellite TV broadcasting signals to said quadrature detector circuit,

wherein when said tuner apparatus receives said satellite TV broadcasting signals, said second oscillator circuit supplies said second oscillation signals in a predetermined frequency band of the occupied bandwidth and of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals;

and

wherein when said tuner apparatus receives terrestrial TV broadcasting broadcast signals or said CATV broadcasting broadcast signals, said second oscillator circuit supplies said second oscillation signals ~~in a predetermined frequency band~~ to said quadrature detector circuit where after said first intermediate-frequency signals supplied thereto ~~are have been~~ frequency-converted into second intermediate-frequency signals by using said second first oscillation signals.

Claim 5. (Currently Amended) The tuner apparatus according to claim 4, further comprising ~~a first~~ an intermediate-frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit.

Claim 6. (Currently Amended) The tuner apparatus according to claim 4, further comprising ~~a first~~ an intermediate-frequency filter disposed between said satellite TV broadcasting receiver and said quadrature detector circuit or between said mixer circuit and said quadrature detector circuit.

Claim 7. (Previously Presented) The tuner apparatus according to claim 4, further comprising an input bandpass filter disposed after said satellite TV broadcasting receiver or after said CATV broadcasting receiver.

Claim 8. (Currently Amended) The tuner apparatus according

to claim 4, wherein, when said tuner apparatus receives said satellite TV broadcasting signals, said intermediate-frequency signals obtained by receiving said satellite TV broadcasting are supplied through said mixer circuit to said quadrature detector circuit and said mixer circuit operates as said first intermediate-frequency amplifier.